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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/989,117	11/21/2001	Kenji Awamoto	1466.1049	1304

21171 7590 08/15/2003

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EXAMINER

LIU, MING HUN

ART UNIT	PAPER NUMBER
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2697

DATE MAILED: 08/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/989,117

Applicant(s)

AWAMOTO ET AL.

Examiner

Ming-Hun Liu

Art Unit

2697

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Method and device for implementing subframe modulation to reduce the pseudo contour effects in plasma display panels.

Drawings

2. Figures 9 and 10, based on the description from pages 2-4 of the specifications, should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 1 is rejected under 35 U.S.C. 102(e) as being unpatentable by US Patent 6,297,788 to Shigeta.

Shigeta explains that the method for driving a plasma display panel by replacing a frame with a plurality of subframes having weights of luminance and by setting on and off of light emission of cells for each subframe so as to realize a gradation display is well known in the art (column 1, lines 23-29), the method comprising the steps of: assigning a luminance weight to the subframes so that plural types of subframe expressions as combinations of subframes to be lighted are prepared for a specific gradation (column 1, lines 31-48). Shigeta also describes in his invention, applying a superposition method in which the plural types of subframe expressions are mixed only to the specific area of the frame that is made of pixels having the specific gradation (column 12, lines 24-48) and has a luminance gradient within a preset value range between the neighboring pixels (column 12, lines 48-52).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Shigeta and US Patent 6,529,204 to Mikoshiba et al.

In reference to claim 2, Shigeta does not explicitly state to limit the specific area to an area larger than a predetermined value, however it would have been obvious one skilled in the art would to limit the superposition methodology to the area of the display where the pseudo outlines occur. Furthermore, Mikoshiba disclosures on column 19, lines 40-42, the removal for

false contours in selected areas. It would have been obvious to implement this limitation because pseudo contours occur at image movement areas thus it would have been obvious to drive the superposition method on these specific regions.

Claim 3 is rejected on the same basis as the rejection of claim 2.

Claim 4 is rejected on the same basis as the rejection of claim 2.

Claim 5 is rejected on the same grounds as the rejection of claim 2, with added emphasis on Mikoshiba's discloses a method where expressions are mixed while performs another light emission control for the other areas without applying the superposition (column 19, lines 43-49).

Claim 6 is rejected on the same basis as the rejection of claim 5.

Claim 7 is rejected on the same grounds as the rejections of claim 5 with the further understanding that it is inherent to the device to have an area decision circuit in order to isolated the superposition on certain areas of the display. The applicant merely elaborates on a inherent, more detailed discussion that Mikoshiba is silent on.

Claim 8 is rejected on the same basis as the rejection of claim 7

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ming-Hun Liu whose telephone number is 703-305-8488. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on 703-305-3885. The fax phone numbers for the

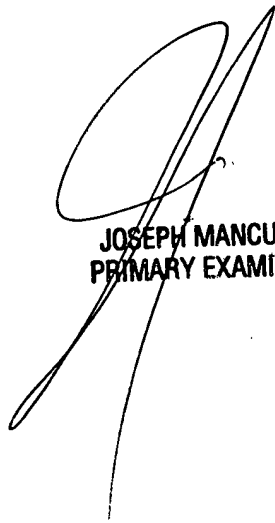
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Art Unit: 2697

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organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

Ming-Hun Liu
August 11, 2003



JOSEPH MANCUSO
PRIMARY EXAMINER